

**SYSTEM AND METHOD FOR VIRTUAL INTERACTIVE DESIGN AND  
EVALUATION AND MANIPULATION OF VEHICLE MECHANISMS**

**ABSTRACT OF THE DISCLOSURE**

5           A system and method for virtual interactive design  
and evaluation and manipulation of a vehicle mechanism using a  
haptic-user interface is provided. The system includes a  
computer system and a haptic interface operatively in  
communication with the computer system, whereby the haptic  
10 interface includes a haptic end effector device for  
transmitting information between a user and a digital model as  
the user interactively creates, modifies, and evaluates  
kinematic and dynamic properties of the vehicle mechanism  
using the haptic end effector device.